

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1.-13. (Canceled)

14. (Currently Amended) An isolated polypeptide up to 12 amino acids in length comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 1 and 14-19.

15. (Previously Presented) The isolated polypeptide of claim 14, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 1.

16. (Previously Presented) The isolated polypeptide of claim 14, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 19.

17. (Original) The isolated polypeptide of claim 14, wherein the polypeptide binds to HLA molecules with a high avidity.

18.-19. (Canceled)

20. (Original) The isolated polypeptide of claim 17, wherein the polypeptide is derived from a mucin tumor antigen.

21. (Original) The isolated polypeptide of claim 17, wherein the polypeptide is derived from a non-variable number of tandem repeats region of MUC-1.

22. (Original) The isolated polypeptide of claim 17, wherein the polypeptide induces an immune response.

23. (Original) The isolated polypeptide of claim 17, wherein the immune response is a cellular immune response.

24. (Original) The isolated polypeptide of claim 23, wherein the cellular immune response is a cytotoxic T cell response.

25. (Original) The isolated polypeptide of claim 23, wherein the cellular immune response is a T helper cell response.

26. (Original) The isolated polypeptide of claim 23, wherein the cellular immune response is a B cell immune response.

27. (Previously Presented) The isolated polypeptide of claim 14, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 14.

28. (Previously Presented) The isolated polypeptide of claim 14, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 15.

29. (Previously Presented) The isolated polypeptide of claim 14, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 16.

30.-45. (Canceled)

46. (Withdrawn) A method for treating a subject suffering from or susceptible to a MUC-1 tumor comprising administering to a subject at least one polypeptide of claim 14, such that the subject is treated.

47. (Withdrawn) The method of claim 46, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 1.

48. (Withdrawn) The method of claim 46, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 19.

49. (Withdrawn) The method of claim 46, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 14.

50. (Withdrawn) The method of claim 46, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 15.

51. (Withdrawn) A method for treating a subject suffering from or susceptible to a MUC-1 tumor comprising:

isolating dendritic cells from a subject suffering from cancer;

treating the dendritic cells with at least one polypeptide of claim 14; and,

administering the treated dendritic cells to the subject, such that the subject is treated.

52. (Withdrawn) The method of claim 51, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 1.

53. (Withdrawn) The method of claim 51, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 19.

54. (Withdrawn) The method of claim 51, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 14.

55. (Withdrawn) The method of claim 51, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 15.

56. (Withdrawn) A method for generating an immune response to a weakly immunogenic antigen comprising administering to a subject at least one polypeptide of claim 14 fused to a weak immunogen.

57. (Withdrawn) The method of claim 56, wherein the weak immunogen is a differentiation antigen.

58. (Withdrawn) The method of claim 56, wherein the weak immunogen is a tumor antigen.

59. (Withdrawn) The method of claim 56, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 19.

60. (Withdrawn) The method of claim 59, wherein the polypeptide is fused to a carcinoembryonic antigen.

61. (Withdrawn) The method of claim 59, wherein the polypeptide is fused to a viral antigen.

62. (Withdrawn) The method of claim 59, wherein the polypeptide is fused to a self-antigen.

63.-66. (Canceled)

67. (Withdrawn) A method for treating a subject suffering from or susceptible to a MUC-1 tumor comprising:

isolating dendritic cells from a subject suffering from cancer;
treating the dendritic cells with at least one polypeptide of claim 14;
activating peripheral blood mononuclear cells with the treated dendritic cells;
administering the activated PBMC cells to the subject.

68. (Withdrawn) The method of claim 67, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 1.

69. (Withdrawn) The method of claim 67, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 19.

70. (Withdrawn) The method of claim 67, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 14.

71. (Withdrawn and Currently Amended) The method of claim 67, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 15.

72.-78. (Canceled)

79. (Previously Presented) The isolated polypeptide of claim 14, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 17.

80. (Previously Presented) The isolated polypeptide of claim 14, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 18.

81. (Withdrawn) The method of claim 46, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 16.

82. (Withdrawn) The method of claim 46, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 17.

83. (Withdrawn) The method of claim 46, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 18.

84. (Withdrawn) The method of claim 51, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 16.

85. (Withdrawn) The method of claim 51, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 17.

86. (Withdrawn) The method of claim 51, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 18.

87. (Withdrawn) The method of claim 56, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 1.

88. (Withdrawn) The method of claim 56, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 14.

89. (Withdrawn) The method of claim 56, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 15.

90. (Withdrawn) The method of claim 56, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 16.

91. (Withdrawn) The method of claim 56, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 17.

92. (Withdrawn) The method of claim 56, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 18.

93. (Withdrawn) The method of claim 67, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 16.

94. (Withdrawn) The method of claim 67, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 17.

95. (Withdrawn) The method of claim 67, wherein dendritic cells are treated with a polypeptide comprising the amino acid sequence of SEQ ID NO: 18.